

AMERICAN RAILROAD JOURNAL,

IRON MANUFACTURER'S AND MINING GAZETTE.

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Saturday, November, 11, 1848.

RAILROAD IRON.

THE MOUNT SAVAGE IRON WORKS, Allegheny County, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron.—Communications addressed to either of the subscribers will have prompt attention.

J. F. WINSLOW, President
Mount Savage Iron Co., Troy, N. Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md.

November 6, 1848.

Schuylkill Navigation Company.

There was, as we understand, a general meeting of the stockholders and bondholders of this company held a short time since, the object of which was to agree upon some plan calculated to relieve the company from the embarrassments with which it is surrounded. The substance of the propositions submitted for consideration was as follows: That the holders of the loan of 1865 which amounts to about \$1,400,000, should agree to commute it at the rate of 75 per cent. in new bonds, and 25 per cent. in stock at par. That is, for every old bond of \$1,000 surrendered, the holder to receive a new bond for \$750 and \$250 in the shares of the company at their par price. This would reduce the loan of 1865 to about \$1,050,000. The loan of 1868, which amounts to \$3,600,000, to be commuted at the rate of 50 per cent. and 50 per cent. in the shares of the company at par.

This would reduce that loan to \$1,800,000, and less, in the aggregate, the company's indebtedness \$2,150,000—reducing the companies present liabilities for loans from \$7,000,000 to something less than \$5,000,000. This plan of relief may aid them, if carried out but it will not be a cure for their difficulties, which are radical, and can only be removed by an amicable and equitable understanding with the Reading railroad company, by which a fair and remunerating rate of tolls shall be charged on both of these noble works. Nothing short of this will restore the Schuylkill navigation company to prosperity and to credit—and the shareholders ought to require the managers to accomplish this object, or select others who will do it.

Since the above was in type we have received the "Commercial List," of Saturday last, by which we are informed that an arrangement has been made between the Schuylkill Navigation and Reading Railroad companies, which promises to prove advantageous to the stockholders of both companies. The editor of the "List" congratulates the friends of both these great and important works, that this arrangement has been consummated. So do we.

The following statement, which we copy from that excellent paper, embraces the principal points in the arrangement, which is to take effect on the 1st of January next, and continue until January, 1850:—

"There is to be no increase in the machinery or wharves of the railroad company, between this period and January 1, 1850.

"The price to be charged for toll and freight on the railroad, from Pottsville to this city, is to be 95 cents per ton more than the charge for freight on the canal, from the same point; and the price for toll and freight for the way trade on the two works, are to be in proportion. The tolls and freight on the railroad, and the tolls on the canal, are to be paid in actual cash; and no discount is to be paid by either party, except 5 per cent. for wastage, and a dumpage of 12 cents per ton on coal delivered at Richmond; said dumpage not to be allowed on more than two-thirds of the quantity received.

"No direct or indirect bounties or allowances are to be made by either party, nor are any special bargains to be made by which the operators will be compelled to use either work exclusively.

"The quantity of coal to be brought down in 1849 from the Schuylkill region, is estimated at 1,800,000 tons; and it is supposed that the above arrangement will secure to the railroad twelve hundred thousand,

and to the canal six hundred thousand tons, or one-third of the whole amount. The canal company is to be at liberty, if they should find it necessary in order to accommodate their estimated portion of the trade, to increase their cars and landings to the extent of 20 per cent. on their previous facilities.

"The price charged for toll on coal on the canal, is to be 75 cents per ton, and the toll and freight on the railroad \$1.70 per ton from Pottsville to this city."

The Western, or Boston and Albany Railroad.

We are not only prompted to publish this memoir as a chapter of railroad history for the future historian, and also by way of encouragement to companies now laboring under embarrassment, but also to place on record another among the numerous instances in which individual efforts, and personal sacrifices—greatly lauded, and appreciated, at the moment of necessity—are forgotten, and remain unrequited, by those who have been largely benefitted by those efforts and sacrifices.

The press of other matter on hand compelled us to divide No. 1. of the memoir, and we now give its conclusion. No. 2. will follow at an early day—showing the efforts required to carry the work thro' to Albany, and bring it wholly under Boston management—and it will be found well worthy of attentive perusal.

[No. 1.]

Continued from page 707.

In obedience to the orders of the committee, the inventor of the loans to the Western railroad has penned the above brief history of the plan, the successful execution of which has rescued the Western railroad from shipwreck—of the plan, the successful execution of which, has saved the patriotic citizens, who, with enlightened forecast, have sustained it from being pointed at by the finger of scorn of their less far-seeing fellow citizens; which has saved the commonwealth, with a half-finished and profitless iron river, from being the butt of the like scoff, scorn, and ridicule, which is now cast upon many of the great works of internal improvement of our young giant of the west.

In presenting the history of this plan, agreeably to the orders of the committee, it has been the aim of the inventor to give, unadorned, historical facts, in their simplest shape. He has spoken of himself as he would of a stranger, while writing the history of a great event; of an event, which, according to the public voice, (since the declaration of independence,

and the adoption of the constitution of the United States,) form the great epoch in the history of the commonwealth.

The remarkable feature of this plan is, that one mind conceived it, at the exact point of time, beyond which the opportunity of commanding success would have fled; and that the man who conceived it had, in its success, a never-failing confidence, which saw, in every new obstacle, only an occasion for a new triumph of a mathematical demonstration consequent upon this new science—over pre-existing, deep-rooted habits—and indeed over knowledge of an older date.

The remarkable feature of this plan is, that the mind which conceived it, kept in advance of public sentiment, unawed, undisturbed; unhesitatingly proposing, and laying the basis to carry, and then carrying new measures, as these new measures became necessary: and that each of these new measures was, like the first, deemed impracticable, when first proposed by him—and doing this at the risk (well known to himself,) of being pronounced visionary, as all men are very naturally pronounced, who, in any very prominent measure, happen to be in advance of the knowledge possessed on that subject by the masses of men. This being pronounced visionary, had, of course, an influence—both seen and unseen—adverse to the pecuniary interest of the inventor, in his other pursuits: and to a large amount.

The plan, even in its first conception, was not simply to obtain the loan of \$2,100,000; but it was to enlist the mighty power of public opinion (founded on knowledge and demonstration) for the purpose of causing the mighty power of the aggregate force of the state to be efficiently employed in constructing and carrying to completion the Erie canal of Massachusetts, and placing it in full and successful operation—and this original conception was kept constantly in view by the inventor, who, in all his speeches, public and private (to the number of at least, 1,000 speeches a year, from 1837 to 1842) took care to inculcate, on the public mind, the great fact, "that this was a work of such great, substantial and immense benefits to the whole people, that the whole force of the whole people should be enlisted, and should be used to any extent which might be found necessary to carry the work into successful operation—the time having arrived, when the industry of Massachusetts, isolated as it was from the great west, could no longer be kept at home, if we allowed ourselves to linger in the rear of this eventful age." By thus elevating, with forecast, the public mind, to the standard of this great purpose, preparation was made to render the second and the third loans palatable, as well as the first loan; and this was done at the very time when some of our friends, who did not attend our caucuses, were at each loan, pledging themselves to the legislators, that no more loans would be petitioned for.

In the execution of this plan, a strict adherence to truth and demonstration was kept constantly in view and was constantly inculcated, as an integral part of our system, in our monitorial schools. This made us sure of triumph in argument, upon any position we assumed, whenever such position (however astounding it might be) was disputed. It made every disputed point only the occasion of diffusing and inculcating some truth, bearing favorably on our plan. It is this simple rule, which, in all our caucuses, converted every opposing speech into a good argument for our purpose, by a good-natured, natured demonstration of its fallacy.

No less a task was undertaken, than to make, in public opinion, a total revolution. This public opi-

nion was, from the very outset, well known to the inventor to be decidedly adverse, and met us at every step. The necessity was therefore perceived, from the very outset, of instructing the whole community, and of doing it by establishing monitorial schools, and monitorial teachers, and they were accordingly established. At every large, and at every small meeting, he that listened was himself desired to become himself a monitorial teacher, passing the like request to him to whom he spoke. It was thus that each man, within his own circle, was made an agent to impart around him, the pure, the irresistible light of this new science, and of mathematical truth; and that this circle enlarged, more and more, as does the ring, formed on the unruffled surface of a lake by a pebble thrown into it.

The inventor of the game of chess was told by a mighty king, delighted with his invention, that he might have any reward which he desired. His request was, "one grain of wheat for the first checker of the board, going on doubling up to the sixty-fourth checker." The mighty king instantly ordered the granting of this (as he thought) very modest request. The calculation being made, the king's treasurer had to report to the astonished king, that the countless millions of grains of wheat, for the 64th checker, went far beyond the ability of the treasury. This story was recounted, in our early meetings, and to the great encouragement and comfort of our friends, (in the then feeble and discouraging state of our numbers,) and the like rule was recommended, as the settled plan of campaign. Its irresistible power was dwelt upon. It was requested, and constantly inculcated, at every one of our meetings, public and private, that each man whom you instructed should pledge himself to instruct at least two more, requesting this constantly doubling rule to be constantly kept up; thus reducing it to mathematical certainty that this instruction, and consequent conviction, would soon pervade the whole community.

It was, from the first, perceived that he who undertakes to teach must himself be well informed.—The invention was not a stranger to some of the leading events, in the cause of internal improvements—from the incipient motion of John Quincy Adams, in the senate of the United States, whence grew the celebrated report in 1806, by Albert Gallatin (then secretary of the treasury) giving (as far as the then state of the science would permit) the great outline of the great system, as since unfolded—and from the earlier conceptions of the Erie canal and of the Chesapeake and Ohio canal, by Gen. Washington—to the history of the incipient stage and progress of these improvements in New York, Maryland, Pennsylvania, and other parts of the United States. The inventor of the present loans had, in his possession, the early common sense explanation of the railroad system, which had been published for the benefit of mankind, by the society of internal improvements in Pennsylvania, and by an enlightened member of the Western railroad board of directors. He had not been an inattentive observer of the progress of the railroad system in our own state. But, yet, he felt the importance of procuring other and more light; and indeed of procuring all the light which could be procured. The French authorities were therefore ransacked. The talented work of Poussin and of Gen. Bernard, the fruit of sixteen years' researches in the United States, was purchased and carefully studied. Moreau's researches of the railroad art, and his lessons to the French people, were also procured and attentively considered. Light, from England, was sought and found, in the excellent work on railroads, published by Strickland,

the celebrated engineer, whom the enlightened and liberal Pennsylvania society of internal improvements, had, at its own expense, sent to England, to make a study of the science. The New York canal commissioners were written to, by Wm. Savage, the chairman of our corresponding committee, and kindly threw the light shed by the great results of their great works. And, in addition to all this, contributions of information of every kind, bearing on our great purpose, were constantly, at every meeting, public and private, invited from every listener, and every listener's friends. Thus was an impetus created, fostered and cherished, which made the knot of men, clustering around the inventor of the loan, the focus at which the rays of light of this new science thus naturally concentrated and whence they irradiated.

In the first stockholders' regular meeting, for the first loan, November 23, 1837, and in the earlier caucuses, Boston was, by the reading of statistics of its own trade, astonished at its own greatness, when compared to other cities; and astonished at its own capabilities for its high destiny—and was inspired to action.

The distinguishing feature of this invention is, that he who conceived it was also constantly, unremittingly, night and day, in the field, as well as in the cabinet, engaged, to the very end, in carrying it forward to successful operation, exposed, unmoved, and undismayed, to the intense fire, to which the van guard, in a great battle, is usually exposed; and that he happened to be an individual, whose opportunities had enabled him to judge that a measure can be carried from its own intrinsic good sense—even if everybody deems, at first blush, the carrying of this measure an impossibility. He judged, from the nature of the case. He had learned from experience, in other campaigns, that the sure way to move the leaders was to convince, and thereby impel the masses. He knew that the masses had good sense and patriotism; but he also knew that patience and perseverance were indispensable, in teaching this new art to the masses of men; and he accordingly went to work, regarding an opponent only in the light of a candidate to be convinced, and thereby to be converted to the true faith.

All which is respectfully submitted.

Railroads in Cuba.

We are indebted to a friend for a manuscript copy of a late report made by Manuel Jose de Carrera y Heredia, civil engineer, of Matanzas, in relation to the Sabanilla railroad company's extension to Navajas, and its connection with the Havana and Cardenas railroad, for which he will please accept our thanks.

The road here proposed will be about 18.1 miles in length, and is estimated to cost for grading \$110,520, and for superstructure \$296,783, making the total of \$407,303, and equal to \$22,600 per mile.

The aim of those interested in the construction of this road appears to be to form a connection of the Havana road with the roads from Matanzas and Cardenas, and thus effect an easy and rapid communication between the capital—Havana—and the other principal seaports of the island; but as we have not our map before us, we cannot speak of the subject as we desire, and will therefore leave it for the present, and refer to the following account of other roads furnished by the same hand. It will be found quite interesting, and will do credit to a worthy American, and friend, DON SANTIAGO CLARKE.

Havana, September 1, 1848.
To the Editor of the American Railroad Journal:
In the multiplicity of novel and strange things

which nature is constantly presenting to the observation of an American, when visiting the island of Cuba, he cannot overlook those to which he is more accustomed, but which tend so much to his comfort as a traveller. I allude to the railroads; and as a short description of them may be interesting to your readers, I send you the following description of some of them—and first of the

HABANA AND GUINES RAILROAD.

"The railroad from Habana to Guines was commenced in the year 1835, and finished to Garciny, about one mile farther out of town than Villamuva, its present station of commencement, at the close of the year 1838.

In 1840 the road was brought in town, and the location of Garciny abandoned.

It was built by order of, and with funds furnished by, the Real Junta de Formento, under the immediate supervision of the commissioners from that body, Senores Meguel Anto. Herrera, Antonio Maria Escoveda. The "Intendente," Conde Villamuva, president of the Royal Junta, was one of the most zealous friends of the enterprise.

From Villamuva to Byucal, 17 miles, the road was graded for a double track, and from thence to Guines, 27½ miles farther, the bridges, and other works of masonry, were calculated for the same purpose. In the first instance, the rails of the first 17 miles were laid on blocks of the soft limestone of the country, into which the chairs sunk so much, that for greater security wooden cross ties were afterwards substituted, so that now there are very few bearings of stone in use.

The rails are of the English T pattern, weighing 45 lbs. per yard, with chairs weighing about 18 lbs. at each 3 feet into which the rails are fastened by iron keys.

In this distance of 44½ miles, there were 9 stone arch bridges, varying from 20 to 50 feet span, all of which, save one, were carried away by freshets prior to the year 1842; and have since been replaced by truss bridges of greater span, made of the hard wood of the island, on cut-stone abutments. There are only two gradients as high as 32 feet per mile, and no curves of less than 1600 feet radius.

The road was built under the direction of ALFRED CONGER, Esq., civil engineer, (B. H. Wright, a son of the late eminent Judge Wright, was associated for the first 13 miles,) who also was the chief engineer of the Jucaro, Matanzas and Coliseo railroads.

In 1841, the road to Guines, including all the outfit of engines, cars, etc., was sold to a company of 25 individuals, for three millions of dollars, with the obligation to construct, within six years, one branch to the south coast at Batabano 10 miles long, one to San Antonio, towards the west, of 8 miles, and prolong the main lines 21 miles to the partido of "Los Palos." The company also reduced the rates of fare, of the first class, 50 per cent., of the second class, 33 per cent., and of the third class, 24 per cent. on the charges existing at the time of the sale.

THE BRANCH TO BATABANO, was commenced at the close of 1842, and finished in December, 1843. It is graded for a single track, and laid with cross ties of the durable hard wood of the island, with the H, or American pattern of rail, weighing 56 lbs. per yard, having no grade exceeding 20 feet to the mile; and only 1800 feet of curved line. There is a wharf at its termination at Batabano, with double track, 1200 feet long, extending out to 10 feet depth of water.

Its cost, including wharf buildings, etc., is \$134,

243, or \$13,424 per mile—being \$19,000 less than the estimate.

THE SAN ANTONIO BRANCH was opened in December, 1844, is 8 miles long, and extends from the main line at Rincon, 14 miles from Habana, to the town of San Antonio; the least curvature is 5730 ft. radius, and the grade (the greatest) descending to the valley in which the town is situated of 33 feet per mile. It is graded for a single track, laid with *quebra hacha*, or break-axe wood, cross ties, with the same kind of rail as the Batabano branch, or 56 lbs. per yard.

The road has been in use nearly four years, and is now probably the smoothest and best in the new world. The passenger house at San Antonio, is a very pretty stone building, the store house much like those of Los Palos and Bernega.

The *quebra hacha* wood is here called eternal. I have seen wood (posts) that have been from 50 to 100 years in the ground, and still sound.

The road cost about \$115,600, with buildings and turnouts, etc., or \$14,450 per mile—being about 25,000 less than the estimate.

The extension of the road from Guines to join the Matanzas road at Reyes, or La Union, was commenced in January, 1846, and on the 1st inst. opened to Bernega, 27 miles from Guines, or 72 miles from Habana; there still remains 5½ mile, which is almost graded, and will be opened on the 1st of November, when the Habana and Matanzas road will be joined, and the distance between the two cities will be 98½ miles.

This road is built in the same manner as the two preceding branches, excepting that they have used the Maine cedar and chestnut cross ties, 9 feet long, and flattened on two sides, with 7 inches dressed face, and 7 inches thick between the sides. These are larger than are generally used in the States. All of the bridges are built of the hard wood of the island, with abutments of cut stone. The store houses and other buildings are all of masonry, and the whole work is built in a permanent manner.

The line is remarkably straight and level, there being but four curves in the 32½ miles, one at the departure from the main line, one at the junction with the Matanzas road, and two intermediate, comprising a total of 7000 feet of curved road, with radii of 2,865, 3,820, and 5,730 feet. There are about 2½ miles of road with 30 feet grade to the mile (the limit), about as much more at 26½ and 21 feet per mile, and the remainder level, or below 19 feet per mile.

The company are also extending the San Antonio branch road to Guanagoy, a town of about 4,000 inhabitants, situated in the "Vuelty aboga," 14 miles northwest of San Antonio. They expect to open to the public 8 miles this year, and finish the road by the 1st of July next. The road was estimated to cost \$250,000, but will probably not cost more than about \$210,000.

When these roads shall all be constructed, the Habana railroad company will own as follows:

Main line from Habana to La Union—miles...77½
Branch of Batabano.....10
Branch of San Antonio and Guanagoy.....21½

Total of miles.....109

They have now 6 engines of 18 to 19 tons.
6 " 13 to 15 tons.
3 " 16 tons.

And 8 first class double coaches; 5 second class; and 8 third class, and about 350 freight cars.

In their shops they make all the wood work of their cars, and second and third class coaches, and

repairs of engines. The latter are from the establishments of Rogers, Ketchum & Grosvenor, of Paterson, and Baldwin, of Philadelphia.

Last year there passed over the road about 135,000 passengers, and the total receipts amounted to upwards of \$400,000.

The company employ *caladors*, or watchmen, on the road at every league, authorised by the government to arrest, and take to the nearest judicial officer, all trespassers upon the line, who are generally fined \$4 for a simple trespass, and in case of doing damage, made responsible according to the criminality.

These "caladors" are armed with a lance, and flag on it, to give signals if there is any obstruction on the road; and where the English T rail is used, they carry a hammer and drive the keys in the chairs, also advise the repair carpenters—who have stations of six miles each—of any points that require immediate repair; in case the engines are out at night, they carry a lantern, and make signals with it, as occasion may require.

They are paid by the company, and immediately responsible to the administrador general.

The railroad and branches above described are under the management of SANTIAGO CLARKE, Esq., as chief engineer. This gentleman who is an American, and was formerly connected with the canals and railroads in the States of New York and North Carolina, has the entire confidence of the company, and most richly does he deserve it. Familiar as I have been with the management of railroads in the United States for the last twelve years, I can truly say that I have never seen or known one which—in caution to prevent accidents, vigilance in making timely and proper repairs, promptness in starting of trains, careful supervision of machinery, speed of engines, and attention to all the interests of the company, and of the community—has been exceeded by the *Havana railroad*, and those who manage its affairs. It may perhaps be considered as something new, that any of our railroad companies in the U. States could take lessons from one under the Spanish government, but I fear such is the fact, and that this would be your own decision, were you here to examine for yourself. The credit, however, of excellent management on this road, must be divided between Mr. Clark the chief engineer, and JOSE A. ECHEVERRIA, administrador general, or what in the United States would be called the general superintendent of the road, as he has the entire charge of all the passenger and freight business.

We are gratified to learn that the railroads in Cuba are so well constructed. In relation to that "*quebra hacha*," or "*break-axe*" wood, we should like to know more. Is it abundant? and easy of access?—If so it may be found valuable for other purposes. Will some one please give us more definite information on the subject?

Northern (New York) Railroad Report.

We have received the annual report of this company, dated 5th June last, showing the progress made thus far. The entire line has been located and put under contract—and the work was commenced on the western part in December last, and on the eastern half in April, and is progressing with energy; and timber for the superstructure and iron for a portion of the rails contracted for.

The right of way has been mainly secured—over two-thirds, or 808 acres, have been ceded without charge, and the remainder, or about 440, will cost about \$14,000—bringing the average cost very low, or at about \$11 per acre.

The company have done a wise act in securing ample ground at Ogdensburg, and other places, for depots—at Ogdensburg, 62 acres, with a water front of 4,000 feet, accessible to any vessel navigating the lake. This is as it should be, as it will never be worth less than its cost to sell, though it would cost the company many times what they have paid for it, if they wanted to enlarge, after the road is in use.

We are pleased to find our old friend, Col. Schalter at the head of the engineer department. He will ensure to the company a vigorous prosecution of the work, and to the public, a good work when it is completed.

This road is to be connected by a bridge at Rouse's Point, across the outlet of lake Champlain, with the Central Vermont railroad, and Rutland railroad, extension beyond Burlington, by which a train of cars may pass from Ogdensburg direct to Boston, and to Portsmouth, New Hampshire, and Portland, in Maine, without unloading, when the road from Concord to Portsmouth, New Hampshire, shall be completed—thus giving a choice of three seaports for shipping their contents. We give the report entire, except the details of right of way.

Report of the directors of the Northern railroad company, New York.—Submitted to the stockholders, June 5th, 1848.

To the stockholders of the Northern railroad company.

The report, submitted to you at your last annual meeting, detailed the measures adopted by your board, in the location of the Northern railroad, through St. Lawrence and a part of Franklin counties, from Ogdensburg to Malone, a distance of 62 miles. The progress of the surveys has since enabled them to complete the location 52 miles further, to Dewey's farm, a point in Clinton county, four miles from the eastern terminus of the road at Rouse's point. The final location of the remaining short distance, having been deferred only to admit of the exercise of every due precaution in concluding negotiations for grounds and privileges so important to the company there. These are now in the main secured, by a liberal grant from the general government, and some minor arrangements, in the course of immediate settlement, alone delay public notice of the location at this point, fully decided upon by your directors.

At the meeting of your board, in October last, contracts were entered into for the grading of the whole line of your road, under two contracts with responsible parties, about equally dividing the distance, and by the terms of which, the entire line, by given instalments, is to be completed, ready for the superstructure, by July, 1849. The work done under these contracts, commenced on the westerly half of the road, in December. It was necessarily limited, during the season of frost, to such points as would admit of it. Since then the force has been augmented, amounting now to nearly 1,000 men, and is about being further largely increased. On the easterly half of this line, ground was only broken on the 19th of April, but the well known energy of the contractor to whom that work is committed, offers a sufficient guarantee for the proper and timely performance of his contract; by the terms of which, 30 miles, beginning at the lake, are to be graded

and ready for the rail by October next. A third contract had been entered into by your board, for the extensive masonry of the Chateaugay and Salmon river crossings, the former the most important feature in the road. The unexpected difficulty in finding a suitable foundation for the heavy structure here projected, has necessitated an entire change in the plans for overcoming this chasm. The new plan, being to turn the river through a tunnel under the embankment, compares favorably with the one first projected, in point of expense, and time necessary for construction, and has the recommendation beyond, of superior safety and solidity; it has, therefore, been adopted by your directors. This needful change in construction, has led to some delay and modification of original contract, by which this portion of the work has been retarded—but not sufficiently, it is hoped, to prevent its completion by the time originally intended.

During the past winter, contracts have been made for ties, timber, and fencing materials, sufficient for all the requirements of your road for such material, until new supplies can be obtained next winter.

At the meeting of your directors, in March, contracts were closed, on favorable terms, for six thousand tons of iron; also for chairs and spikes; further, for a sufficient number of cars and engines, to commence running the road; and a contract has also since been made, for the delivery of the iron at Ogdensburg, and Rouse's point.

The settlements involved in securing the right of way, and requisite land for stations and other purposes, along the whole line of your road, have had the unremitting attention of Messrs. Russell and Horton, upon whom this very arduous and responsible duty was devolved. These show, that from the terminus at Ogdensburg to Champlain village, a distance of 114 miles, nearly all the lands necessary for roadway have been secured, and of a width throughout sufficient for the demands of a double track.

Of the whole 1,206,009 acres, taken for the 114 miles of roadway:

808,432 acres have been voluntarily released:

262,001 acres have been secured by agreement, at the cost of \$6,296 67

23,974 acres have been appraised by law, at 1,195 31

Leaving 112,575 still to be settled for, involving an estimated expenditure of 2,000 00

Adding to this the estimate of 4,000 00

for cost of roadway still to be secured, from Champlain village to the lake, 4 miles, equal to 40

acres, and we arrive at less than \$14,000 00 as total cost of roadway, for lands, (about 1,250 acres,) which with usual costs and damages, under legal appraisal, would have cost the company probably not less than ten times that amount. Besides, these grants for mere nominal considerations, give the company a title in fee, relieved from restrictions of legislation.

The lands purchased for other purposes than roadway—for stations, materials for construction, and to avoid a larger expense for farm crossings, consist of 285 acres, at a cost of \$15,344 42. The principal expenditure, under this head, is at Ogdensburg. At that point, an area, of 62 acres has been purchased, promising a terminus every way worthy the importance of your road, by offering an ultimate water front of 4,000 feet, accessible the entire distance to any vessel navigating the Western lakes. This probably unequalled location, must inevitably constitute the future centre of the harbor of the "city" of Ogdensburg, and become of incalculable value to the stockholders, and to public accommodation.

At other points of the line, the most eligible grounds for stations have been secured; and whenever these wants of the company could not be definitely determined, as at Rouse's point and Champlain village, refusals for similar lands have been obtained.

The directors refer to the schedule, laid on the table, for further details on lands and stations.

The location of the Northern railroad, made in strict conformity to the true interests of the stockholders, has nevertheless been a source of disappointment to a few localities, and been made the cause of some unfriendly proceedings on their part, against your company. These the action of our legislature, and the expression of public opinion, has finally and satisfactorily disposed of; and what remnant of disappointment still remains, would seem to be wearing off, if the increase in the voluntary payment of assessments is any proof—for here we find of 2,161 shares registered in Canton, Potsdam, and south, 802 shares as having complied with the assessment. Your directors feel encouraged, therefore, to express confidence in the gradual, voluntary liquidation of the balance, and in an amicable and friendly reunion with some of the earliest and most ardent friends of the road. Under any circumstances, the solvency of the amount due on this part of our local stock, from the character of the large majority of the holders, need not be a subject of doubt.

Our application to the legislature, for the grant of the privilege of connecting your road by a bridge at Rouse's point, with the Vermont shore, was retarded during the last session, by reasons partly connected with the just mentioned causes. This has afforded the opportunity of a thorough investigation of the subject, and given rise to several reports, all favorable to your application. The time consumed thereby, and the short session, prevented final action on the bill. Your directors hesitate not, however, to state, as their unqualified conviction, that the legislature is prepared to pass this bill, at the coming session; and not as a favor extended to Northern New York, but as an act of sound policy and interest to the state at large.

The importance of a connection between the Northern railroad and the city of Montreal, has long had the attention of your board, and led to negotiations, the satisfactory

result of which to your interests, cannot be doubtful; as such connection is even more important to that city than to your road.

At the last meeting of the board, in March, when the final report of surveys was received, a new organization of the engineer corps was deemed called for, with the view of affording the necessary efficiency to meet the great demands made upon it. And your board accordingly engaged the services of Col. Charles L. Schlatter, as your chief engineer. Col. Schlatter has divided the line into three engineering divisions, making his the chief office at Malone, where the most important works occur—with Mr. S. H. Kneass, on the Western, and Mr. T. J. Carter, on the Eastern division, as principal assistants. The short period which has elapsed since these gentlemen were appointed, the unprepared state of the work for active contracts, and the rate at which they are conditioned to be carried out, over 118 miles of road, rendered an efficient engineering force a subject of the first importance and attention; and that by the present appointments, this condition has been achieved to a degree not ordinarily met with, your directors are fully satisfied of.

The board has called upon the stockholders, for two assessments, amounting to 20 per cent. The condition of which, with that of the general finances of the company, will appear from the treasurer's statement.

The foregoing is a brief review of some of the acts of your board, during the past year. They might further enlarge on matters of general or local interest, but they forbear; having, by what has been said, given the stockholders all necessary insight into the management of their affairs, which the Treasurer's report will complete.

In conclusion, the directors would again record their constantly increasing confidence, in the importance of the Northern railroad, and in the value of its stock, and commend it to your undiminished confidence and support.

Northern Railroad Company, (N. Y.) in account with Samuel H. Walley, Jr., Treasurer, to May 15, 1848.

	Dr.	
To incidental expenses.....	\$10,201 56	
To engineering.....	30,529 79	
To land damages.....	8,435 03	
To grading.....	15,938 69	
To timber, fencing, etc.....	5,667 27	
To interest.....	7,156 95	
To iron.....	6,775 00	
To engines.....	1,500 00	
To Geo. Parish, president, cash on hand at company's office, Ogdensburg.....	50,321 75	
To notes receivable, loan on demand, with collateral security.....	101,410 00	
To amount on deposit in Market bank.....	5,519 97	
To cash in drawer.....	323 65	
	243,809 66	
	Cr.	
By assessments, being for amount paid to this date.....	\$234,758 00	
By exchange account balance.....	9 86	
By contingent fund, interest, etc.....	9,041 80	
	\$243,809 66	

SAMUEL H. WALLEY, Jr., Treasurer.
May 15, 1848.

N. B. More than \$50,000 have been received on the account of assessments, since May 15th, the date at which the books were closed; and more than \$40,000 have been paid out at Ogdensburg, since that date, on account of work done upon the line of the road.

S. H. W. Jr.
Champlain Village, N. Y., June 5, 1848.

We, the undersigned, Committee on Accounts, have examined the payments made by the treasurer, as stated above, and find them all correctly vouched.

B. T. REED,
T. B. CHANDLER,
Committee.

OFFICERS ELECTED FOR THE YEARS 1848-9.

Directors.—Abbot Lawrence, Boston; G. Parish, Ogdensburg, N. Y.; J. W. Edmonds, Boston; Charles Paine, Northfield, Vt.; I. Spaulding, Nushua, N. H.; J. L. Russell, Canton, N. Y.; Geo. Redington, Wadlington, N. Y.; B. T. Reed, Boston. T. B. Chandler, Boston; Wm. H. Harrison, New York; H. Horton, Malone, N. Y.; George V. Hoyle, Champlain, N. Y.; A. C. Brown, Ogdensburg, N. Y.

President.—George Parish, Ogdensburg.
Treasurer.—Samuel H. Walley, Jr.
Secretary.—James G. Hopkins, Ogdensburg.

[From the Philadelphia "Commercial List."]
Pennsylvania Coal Trade for 1848.
From the Lehigh Mines.

The amount of coal shipped from the Lehigh mines during the week ending the 28th ult., and since the opening of the navigation, has been as follows:

	This week.	Total this year—
	tons.	year—tons.
By Lehigh company, Oct. 31.	4,352 03.	302,117 13
By Room Run.....	3,282 00.	109,004 00
By Hazleton.....	2,087 00.	79,683 00
By Beaver Meadow.....	2,781 17.	75,814 09
By Buck Mountain.....	2,648 10.	65,584 11
By Spring Mountain.....	1,647 11.	56,855 19
By Cranberry Mines.....	1,085 00.	13,705 00
White Haven.....	275 01.	9,372 06
Diamond Co.....	626 04.	4,972 11
Total.....	18,785 06.	617,109 09

From the Schuylkill Mines.

The amount of coal forwarded by Reading railroad during the week ending the 2nd inst., and since the 1st of January, has been as follows—

	Tons.
From Schuylkill Haven.....	9,150 00
" Pottsville.....	5,285 02
" Port Carbon.....	8,286 17
" Port Clinton.....	3,006 17
Total this week.....	25,728 16
Total this year.....	1,077,529 16

The amount of coal brought to market by the Schuylkill canal during the week ending the 2nd inst., and since the opening of the canal, has been as follows:—

	Tons.
From Pottsville and Port Carbon.....	7,414 02
" Schuylkill Haven.....	3,798 19
" Port Clinton.....	636 10
Total this week.....	11,849 11
Total this year.....	386,273 08

Recapitulation.—Total Shipments this Season.

By Lehigh companies.....	617,109 09
By Reading railroad.....	1,077,529 16
By Schuylkill canal.....	386,273 08
Total.....	2,081,211 13

Cheshire, N. H., Railroad.

Third Annual Report, May, 1848.

From some cause we have not heretofore met with a report of this company, and have not therefore been familiar with its progress and condition; but when recently at Boston, we availed ourselves of the courtesy of the able superintendent of the Fitchburg road, S. M. Felton, Esq., to make an examination of the road under his charge, and also of the Massachusetts and Vermont, and the Cheshire roads.

These two latter roads are, as will be seen by referring to the map, extensions of the former, from Fitchburg, diverging from Gardiner, 10 miles from Fitchburg and 60 miles from Boston. The Massachusetts and Vermont road bears almost due west, until it crosses the Connecticut river, where it turns northerly to Brattleboro', to be continued to Bellows Falls; and southwesterly to Greenfield, where it connects with the Connecticut river road, to Northampton, Springfield, Hartford, and thence to New Haven and New York. It is proposed to construct a road from Greenfield westward to North Adams, and thence to Troy, N. Y.—which is now much more likely to be accomplished than was the Western road in May, 1837. The Cheshire road takes a northwesterly course to Keene and Bellows Falls, whose third annual report is given herewith, is now completed, and in very successful operation, 32 miles to Keene, and the remaining part to the river will be completed in a few weeks. There are few lines in the country of equal length, on which there has been so much heavy cutting. A few miles west of Keene is a cutting, through granite rock, of appalling magnitude—being over 4,000 feet in length, and varying from 20 to 50 feet in depth. It has been, however, successfully completed, and the superstructure is now laid through it, so that locomotives can pass with materials for the line beyond.

The grades upon a part of this line for several miles, are as high as 58 feet to the mile, in the direction of the heavy trade; yet it has been thus far completed in the most thorough manner, and we can, without fear of contradiction, say that it will compare favorably with the best built roads in the Union. Indeed we have seldom passed over a road constructed as well; the superstructure being of the most substantial character, laid on gravel or sand ballasting upon the natural soil, and in the cuttings the roadbed is raised nearly two feet, with side walls to the drains, thus ensuring a free passage to the water. When completed to the river, it will connect with the Sullivan road, up the valley of the Connecticut, to Windsor, where it will connect with the Vermont Central, and the Passumpsic river roads, and also, and especially, with the Rutland road, from Bellows Falls to Burlington, where it will receive its share of the business from the Ogdensburg road, and a connection with Montreal.

The Rutland, the Vermont Central, the Passumpsic river, and the Ogdensburg roads, are all progressing rapidly, and will all be completed by July, 1850—or before—when the Cheshire road will just begin to feel their influences, and its shareholders to learn how far short of the truth were their estimates of their own position, and the soundness of their investment.

To the sagacity and perseverance of their able president, Thomas M. Edwards, Esq., and to the ability and untiring efforts of their chief engineer, L. Tilton, Esq., well sustained by the board of directors, are the stockholders deeply indebted for a work which will add to the value of property on its line many times its cost, while it will pay a regular large return upon their investment.

We have before us the three annual reports, but only publish the last, which comprises all of present interest to our readers. The distance from Boston to Ogdensburg by this route will be about 380 miles. The report says:

REPORT.

Agreeably to the by-laws, the directors present to the stockholders their third annual report, showing the condition and prospects of the corporation, on the first day of the current month.

In our two former reports, we endeavored to give a full history of the progress of our enterprise from its commencement to the respective periods at which they were made. It only remains to us to bring that history down to the present time, to make an exposition of the present state of our affairs, and to speculate, as we may, in good faith, on our prospects for the future.

During the past year, it has been our purpose to prosecute the work, on all parts of our road, with the utmost diligence. In this the engineer has fully co-operated. We have felt sufficiently impressed, we believe, with the importance, in every point of view, of the earliest possible completion of our entire line; and if in the dispatch with which we have moved forward, we have at any time failed to keep pace with public expectation, it has arisen from no indifference on our part to the wishes and wants of the stockholders and of the public at large, but to peculiar circumstances in which we have been placed, and to unavoidable difficulties and obstacles which required time to overcome and remove. It was our expectation, at the last annual meeting,—and so stated in our report,—that we should reach early in the past winter the point to which we have opened the road but to-day; but when it is known that the heavy work at our extreme southern terminus, at the very entrance upon our line,—a work second only to our somewhat famous cut at the summit, on our northern division,—was not, and could not, after it came into our possession, be completed, under the most competent management, until the first of October, it will require but little experience in railroad making to understand that after that late period in the season, in this climate, we could hardly expect to compass thirty-two miles before our progress should be arrested by the frost of winter. Under these circumstances, we were enabled to complete twenty-two miles, to Troy; and having, at the same time, succeeded in finishing the grading where we could not reach with the track, with a favorable spring and a good degree of energy on the part of those on whose labor it depended, we are enabled now, when assembled for the transaction of our usual business, to exchange congratulations on the completion of the important division of our work, extending to this place.

With three-fifths of our road then, so far finished as to be fitted for safe and convenient use—with more than three-fourths of the work done on the remainder of the line; and with what is unfinished in a good state of progress,—we feel warranted in the assurance, that in the absence of unexpected difficulties,

the whole road will be finished and in use within the current year. The last and only remaining contracts preparatory to that result, incumbent on us to make, were closed some weeks since with H. R. Campbell, esq., for the construction of the bridges in Walpole, over the Cold and the Connecticut rivers.

In these contracts, as well as all others for work or materials, we have endeavored to secure both of the best quality,—we have bargained and are to pay for structures at these important crossings which shall be convenient, safe, and durable, and shall be greatly disappointed if we are furnished with those of any other description.

OPERATION OF THE ROAD.

On the fourth of October last, the road was opened for passengers, and on the sixth of October, for freight, from the junction to Winchendon,—eight miles; and on the twenty-seventh of December, for both to Troy,—twenty-two miles. Two passenger trains, and one freight train, have been run over the road daily; and we are happy to say, during the time without the slightest disaster or injury.

The passenger train, although over a new road, has been run without a single interruption, and with the full average speed of New-England railroads, performing its trips of twenty-two miles in an hour.

It is hardly to be expected that so short a piece of road, with the competition with older roads which it has to encounter at the outset,—a competition which the earlier roads have been exempt from, much to their advantage, but which most roads hereafter must meet,—will be overflowing in its receipts or its profits; but when we consider that it requires time to concentrate business in new channels; that in comparison with the whole ground covered by our expenditures, but a small part has been in use; that the winter months are usually the least fruitful to all railroads; we feel that we have reason neither for disappointment or dissatisfaction in the results thus far.

The amount of road in operation to the first of May, is equal to an average of eighteen and a half miles for six months. The amount of earnings for the whole time on passengers, is ten thousand and on freight, about twenty thousand dollars,—equal to sixty thousand per annum on eighteen and one-half miles of road. These amounts are not stated with fractional accuracy, but vary but little from it.

That there will be a steady increase of business, we entertain no doubt. Every extension widens our sphere of operations.

The extension which we add to-day, we regard as highly important; and when we reach our northern terminus, we open upon a much broader sea.

We have ample means for accommodating and doing our present, and a much larger amount of business. In the construction of our depots, and other arrangements, we have had reference to future as well as to immediate use. While we have been desirous of avoiding all ostentatious extravagance, we

have considered it but wise economy to provide and furnish the road thoroughly and liberally.

We have now on the road in good condition for use, six locomotives,—one of eleven tons; three for passenger business, of eighteen tons each; and two, for freight,—one of twenty, and one of twenty-two tons; four passenger cars, and two others in progress; seventy-two freight cars, and fifty more ordered.

Being thus prepared for business, and intending at all times to be fully prepared, we trust that our friends above us on the line, who have cheered us on in the beginning, and who will rely upon us hereafter for alliances and connections which will be reciprocally beneficial, will suffer no portion of their patronage to be withheld from us now, when it will be most useful, and not merely in a pecuniary point of view, but as justifying our enterprise and disclosing its capabilities,—and especially, when by so doing, they will facilitate their own labors, by establishing for their own enterprises, less advanced than ours a confidence in advance, arising from our success.

FINANCES.

In railroad matters, this is always an interesting and important topic. The large amount of means required for the construction of the various railroads now in progress, has occasioned heavy drafts on the resources of the community. The appeals in favor of one project or another, are frequent and unceasing. That they are answered in some instances with hesitancy and delay, is less a matter of surprise than that in so many instances they are answered at all. Although we have had occasion to disburse a very considerable amount of capital, we have experienced far less difficulty than is usual in obtaining it. Our stockholders have been prompt to their engagements, and the confidence in the ultimate success of our enterprise has continued unabated from the beginning.

From statements furnished by the treasurer, it appears that the whole amount received into the treasury, from all sources, from the beginning to May 1, 1848, is 1,665,190 06 That the whole amount of disbursements during the same time, is 1,641,436 45

Leaving a balance on hand of 23,753 61

The particulars of the disbursements are as follows:—

For preliminary expenses	2,875 50
" incidental expenses	13,250 21
" land damages, including valuable property that may be sold or rented, and wood lots, &c.	71,462 49
" engineering	24,125 69
" fencing	6,671 57
" miscellaneous	7,106 49
" station buildings and fixtures	14,725 98
" superstructure	242,553 22
" grading masonry and	

bridging, 1,122,843 58
 " road furniture 78,370 63
 " 1st dividend of interest, 46,880 59
 " interests on bonds, 10,570 50

1,641,436 45

In providing funds during the past year for the prosecution of the work, the directors have availed themselves of the recommendations of the stockholders at their last annual meeting. The first measure adopted, after applying the assessments received on the original capital, was the creation of bonds to the amount of five hundred thousand dollars. Of this amount, four hundred and six thousand, six hundred and fifty dollars have been negotiated at par, with the exception only of a brokerage commission, allowed in some cases, of one-fourth of one per cent. on the amount of the bond. The residue remain undisposed of, and can very readily be converted whenever the avails are wanted.

The second measure of supply was the disposal of something more than five thousand shares of stock in the possession of the board, taken, with very few exceptions, by stockholders and bondholders,—more than four-fifths of the amount having been taken by stockholders in the proportions in which they held old stock.

With these means, we have been able to meet promptly all engagements.

Our available means for future use we estimate as follows:

Balance due from stock disposed of by vote of Jan. 15, 1847,	259,808 00
Do. from old stock,	23,000 00
Cash on hand,	23,753 61
Bonds on hand,	93,350 00
Shares in capital stock not yet disposed of	90,800 00
	490,711 61

When the above shall be converted and used, we shall have applied all the capital created,—or yet authorised. Whether this shall be found quite sufficient or not, we feel assured of being able to supply without difficulty any deficiency likely to exist. The time has past, if it ever existed, when the final completion of the road could be regarded by any one as questionable. It is now only a question of a few weeks, in point of time,—earlier or later. But still, in this point of view important to us,—important that we shall be realizing at the earliest day, the advantages which we shall derive from the use of our entire line,—important to us, that we shall be ready as soon as the other roads constructing above us shall be completed, to receive their business and to pass it along to its destination; with the Rutland, the Sullivan, the Central, the Passumpsic, the Vermont and Canada, and the Ogdensburg roads,—all passing on to completion, and in the business of all of which our road must participate, in a greater or less degree,—we can want no incentive to urge us on our work, and can entertain no distrust, that when the road shall be completed, the amount of business which shall be done on it will exceed any expectations which have been entertained by its most sanguine friends.

Thomas M. Edwards, Abel Phelps, S. Hale, B. F. Adams, Thomas Thatcher Hiram Hosmer, E. Murdock, Jr., *Directors.*
Keene, May, 16th, 1848.

HEAVY LOCOMOTIVES.

The London Morning Herald of Sept. 23, gives the following account of several new, and powerful, locomotives, recently put into use on the English railways. It seems that Mr. Crampton is taking a prominent place, if not the lead, among the engine builders in England; but it makes one stagger almost to think of a locomotive engine of 34 or 35 tons, and six tons each driving wheel! Only think of the growth of these machines, since 1829—from 5 to 35 tons—only seven fold in nineteen years!!! At this rate of increase, what will be the character of locomotives twenty years hence? We presume much lighter than thirty-five tons.

Speed and Power on the Narrow Gauge.

—Within the last month, several new and powerful engines have been put upon the London and North Western and Midland railways. The most powerful was placed upon the former line on Saturday last, when we had an opportunity of taking a run with it from Wolverton to Tring, in company with the patentee Mr. Crampton and Mr. Braidwood, the locomotive foreman of the former station. The new engines are five in number, but we have witnessed the working of two of them only: the powerful one built after Mr. Crampton's patent, and another on the long boiler and outside principle, after Mr. Stephenson's patent. The three others are a powerful class of six wheel engines, with a six ft. driving wheel and a somewhat less powerful four wheel locomotive, both built by Bury and Kennedy, of Liverpool, and a 6 feet 6 in. driving-wheel, *Jenny Lind*, constructed by Wilson, of Leeds. We do not know either the size of the cylinders or the heating surface of Bury's engines. We believe the four wheel one has about 1,000 ft. of heating surface, and a 16 inch cylinder; and that its weight, in working order, is about 20 tons. Wilson's *Jenny Lind* has we think also a 16 inch cylinder, with 1,000 feet of heating surface. What its weight is we do not know. Mr. Stephenson's new engine has eight wheels, with a 7 ft. driving wheel. The cylinder is 18 inches, and the heating surface 1200 ft. The weight of the engine, in working order, is between 32 and 33 tons. Mr. Crampton's new engine, the *Liverpool*, has eight wheels, with an 8 ft. driving wheel. It has 18 inch cylinders, a 24 in. stroke, and about 2000 ft. of heating surface. Its weight, in working order, is about 34 or 35 tons.

The work of the eight-wheel engine of Stephenson is not superior to the performances of the *Jenny Lind*, 6-ft. driving-wheel engine, with 100 tons, between Derby and Masborough. That class of *Jenny Lind* has only about 800 ft. of heating surface, and a 15 or 16-inch cylinder, and weighs, road worthy, 24 tons. She took 100 tons at an average speed of 42 or 43 miles per hour, up 16 ft. per mile. Stephenson's 33-ton engine cannot do better. She has not sufficient steam for her large cylinder, which should be reduced to 16 in.

Mr. Crampton has followed the example

of his able friend, Mr. D. Gooch, of the Great Western. He has proportioned his heating surface to his 18-in. cylinder. The *Liverpool* has precisely the amount of heating surface that has been given to the 8 wheel broad-gauge engines—viz: 2000 ft., every portion of which is necessary to work the 18 in. cylinder of a passenger engine, at a proper and economical pressure. Mr. Gooch's plan of working the leading and second pair of wheels upon one spring on either side, in order to meet, in the best possible way, any inequalities on the road, has also been adopted by Mr. Crampton. Upon these two pairs of wheels the latter has placed 16 tons, or 4 tons to each wheel; 3 tons are given to each of the third pair of wheels, and 6 tons to each of the trailing, which, in Mr. Crampton's engines, are the driving wheels; and as the axle of the leading wheel is placed close up against the smoke box, and the axle of the driving wheel is behind the fire box, there is practically no driving wheel fulcrum in the centre, or overhanging weight at either end, to produce or promote oscillation. The only disputable point on the question of oscillation is, whether the outside cylinder does not necessarily, as some engineers think, occasion it. As far as we have been able to judge, from a careful personal examination of the brasses and working of the *London*, one of the class of outside cylinders of which we are speaking (Crampton's), oscillation does not necessarily attach to the working of all outside cylinder locomotives. We have at all times found the *London* steady. Shortly after she was put upon the London and North-Western line she was steady at 62 miles an hour, and we found her steady at the highest velocity she reached (57 miles per hour), after she had been running some 20,000 miles.

The *Liverpool* is also extremely steady, and works beautifully. In saying this, we must in justice to the manufacturer say, that we never saw a better made engine turned out of any locomotive shop in England. In the trip that was made with the *Liverpool* on Saturday, a high rate of speed was not attempted. The run was with the tender only, to see how she worked. At 40 miles an hour, the maximum velocity, the motion on the portion of the framing abreast of the leading-wheel was perfectly free from oscillation.

What speed the *Liverpool* can attain and maintain with 100 tons, we shall not venture to predict, but we are quite sure that she will far surpass anything that has yet been done upon the narrow gauge. Her extreme height from the rails is 7 ft. 8 in. only, and with longitudinal sleepers, and carriages with longer bearings and larger wheels than adopted on the London and North-Western railway, the *Liverpool* ought to take a train of 16 carriages from London to Birmingham in 2 hours and 10 minutes, including two stoppages; and with the present carriages and cross sleepers, she should, and might safely, take such a train from Euston-square, up the inclines, to Tring—namely 31½ miles in 35 or 36 minutes, or down the inclines,

when we consider the thousands who inhale the poisonous fumes, consisting of sulphuric acid, sulphurous acid gas, ammonia, &c., given off by the ordinary coal gas, not only affecting the health of a mass of individuals, but injuring the goods of jewellers, silversmiths, and drapers, books, prints, pictures, furniture, and a variety of other articles. This gas has been made and supplied at a price considerably less than that of coal gas. Thus we see accomplished the foretelling of that eminent chemist and philosopher, the late Sir Humphrey Davy, "that at some future time gas would be generated from water for general purposes, surpassing coal gas in brilliancy and purity."

Saratoga and Schenectady Railroad.

In conformity with a resolution of the assembly, passed February 2, 1843, the Saratoga and Schenectady railroad company make their annual report, as follows:

The Saratoga and Schenectady railroad, extending from the village of Saratoga Springs to the city of Schenectady, is 22 miles long.

The cost of construction is \$300,000 00

The receipts of the company from January 1st, 1847, to December 31, 1848, both days included, are

21,750, through passengers.....	\$22,227 16
28,727, way ".....	14,273 95
From freight.....	5,602 32
mail and other sources.....	1,693 30

The expenditures of the company for the same period, for repairing and running road.....\$20,288 72

Number of locomotives.....	3
" passenger cars.....	4
" freight cars.....	6

Machine shop.....	1
Average number of men employed.....	30

Number of miles run by passenger trains 23,628

L. R. SARGENT, Supt.

ATMOSPHERIC RAILWAY.

The editor of the London Mining Journal, of 9th September has the following notice of Cunningham and Carter's system of atmospheric propulsion on railways.

"It is much to be regretted that, from bad mechanical management in the only plan yet tried on a working scale, the adoption of a system of railway propulsion by atmospheric pressure, has received another severe shock in the proposed abandonment of the principle on the South Devon line, and its supersession by the locomotive engine. Notwithstanding these untoward events, we believe the time is fast approaching when a rallying point will be found, and the practical part of the subject will be received with much more favor by the public than ever. We have always most distinctly stated our decided objections, founded on scientific information, and close observation, to the longitudinal valve, convinced that it could never be made to act with certainty and regularity, and was totally unfit for a line of greater length than a mile or two; this opinion has been fully borne out by the results on the Croydon and the South Devon lines. Of the principle adopted by Messrs. Cunningham and Carter we have always spoken highly favorable; the entire absence of leakage, not an atom more vacuum destroyed than there is corresponding power

obtained, and the delicacy with which the regulation of that power can be carried on, renders this principle, in our humble opinion, one of certainty, economic action, speed and safety, when carried into practice. After many months delay, we are now happy to inform our readers, that the proprietors have succeeded in obtaining a very eligible situation, most centrally situated in the metropolis for the exhibition of two large models—one in a direct line, 160 feet long; and the other in a circle, 15 feet in diameter—each having a double line of rails, on which trains will uninterruptedly run in both directions; showing the power and capabilities of the system, the facility with which the trains are backed, and the speed regulated; performing every movement which can be effected by the locomotive, but under far greater control. The working of these models will convince the public of the superiority of this over the valve system, and which we trust will lead to its introduction on some branch line, for proof of its capabilities on a still larger scale. We fully expect it will be in operation by Monday week, after which we shall again return to the subject."

Railway Villages.

This admirable plan for the comfort and improvement of the poor and industrious population of large cities and villages is likely to be carried into operation, as we see by the Railway Chronicle, which says:

"We hear with pleasure that the suburban village association—which, as our readers may be aware, has for its purpose the building of villages suitable for the residences of persons of limited income near railway stations—will, ere long, make use of the South Western line. The whole of the neighborhood of the branch down to Staines is eligible for the views of the society, and the weekly increase of the short passenger traffic there especially shows this."

Wrought Iron Railway Bridges.

We are not alone, it seems, in the adoption of wrought iron bridges for railways—though we may think we are quite as far advanced in their use as our neighbors—except in tubular bridges. The following describes a bridge of 120 feet span:

"One of the new wrought iron bowstring bridges constructed for the Blackwall extension line has been tested at the works of Fox, Henderson & Co., at Smithwick, near Birmingham, in the presence of Mr. Muntz, M.P., Capt. Simmons, and other railway officers. The bridge, as erected on an open space near the London works, presented a clear space of 120 feet between the bearings. It is constructed entirely of wrought iron, and consists of an arch of boiler plates and angle iron tied across at the ends by horizontal bars, the tie being cemented with the arch by vertical standards and by a double system of diagonals, which have the effect of distributing over the whole curve of the arch the action of weights placed on or passing over any portion of the bridge. The ribs are adapted for large spans in cases where either headway is of importance, or where sufficient abutment cannot be obtained without a great outlay. The ribs are supported in such a manner as

to allow not only for expansion and contraction, but also for motion under heavy weight. On this occasion the bridge was loaded with 240 tons of rails and bars, double the load which the bridge can, under any circumstances, be required to bear. The trial gave satisfaction to all concerned."

This will do very well to begin with, but the Messrs. Rider, of New York, have constructed several bridges of wrought iron, exceeding 150 ft. span, for locomotives; and one, if we recollect correctly, of over 200 feet span for a road, or street bridge, to be erected at Buffalo, in the State of New York. Iron bridges for railroads will soon become quite common in this country, as they will be more durable and safer, and therefore cheaper in the end.

We shall give a more full description, with an illustration, at an early day.

Accidents on Railways.

The following analysis of the official returns in England for the last half year shows a large increase of passengers, over last year, which was about 47,000,000, for the year, with a loss of life to passengers from accident of eleven, and injury to sixty-two, out of 26,330,493 carried—or one death to passengers in 2,390,000. The loss of life to those employed upon, and trespassing on, the railways was 79.

"Official Returns Relative to Railway Accidents.—By an analysis of the returns made to the commissioners of railways, it appears that of the 90 persons killed and 99 injured on all the railways open for public traffic in Great Britain and Ireland, during the half year ending the 30th June, 1848, there were—6 passengers killed, and 60 injured from causes beyond their own conduct; 5 passengers killed, and 3 injured, owing to their own misconduct or want of caution; 7 servants of companies or contractors killed, and 14 injured, from causes beyond their own control; 52 servants of companies or of contractors killed, and 18 injured, owing to their own misconduct or want of caution; 18 trespassers and other persons, neither passengers nor servants, killed, and 5 injured, by improperly crossing or standing on the railway; 1 person run over and killed at a crossing through misconduct of an engine driver; 1 suicide—total, 90 killed, and 99 injured; and for the same period the number of passengers was 26,330,492."—*London Min. Jour.*

NEW YORK & PHILADELPHIA.

NEW JERSEY RAILROAD & TRANSPORTATION CO.—

6 O'CLOCK, A. M.

Accommodation Line from New York to Philadelphia, via Jersey City, New Brunswick, and Camden.

Fare for 1st class cars, \$3; for 2d class, \$2 50; children under 12 years, half price.

Leaving every morning, (Sundays excepted) at 6 o'clock, from foot of Courtlandt street, and passing through Newark, Elizabethtown, Rahway, New Brunswick, Kingston, Princeton, Trenton, Bordentown, Burlington and Camden, and arriving at Philadelphia at 11 A. M.

Leave New York 6 o'clock A. M.; Newark, 6h. 30m.; Elizabethtown 6h. 40m.; Rahway, 7 A. M.

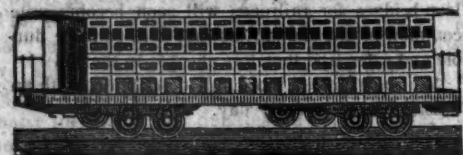
DAILY EXCURSION TO PHILADELPHIA.

Excursion Tickets will be furnished, entitling the passengers to return by the 4 o'clock P. M. Mail Line the same day, or next morning by the 6 o'clock A. M. Mail Line, for FIVE DOLLARS.

RAILROAD IRON.

THE NEW JERSEY RAILROAD & TRANSPORTATION CO. have for sale from 450 to 500 tons of Iron Rails, weighing from 35 to 37 lbs. per yard, of the T pattern, recently taken up from their road to give place to a heavier rail, together with Chairs and Spikes to correspond, which they will sell cheap for cash; the rails have been straightened and prepared for re-laying, and are now ready for delivery on the dock at Jersey City. Apply at 57 Merchants Exchange, New York.

August 23, 1848.—31

CAR MANUFACTORY, CINCINNATI, OHIO.

KECK & DAVENPORT WOULD RESPECTFULLY call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description, Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally. Cincinnati, Ohio, October 2, 1848.

TO CONTRACTORS.

BURLINGTON AND MOUNT HOLLY RAILROAD.—Sealed proposals will be received by the subscriber until the evening of the 13th of November next, for the Grading, Bridging, and Masonry of the Burlington and Mount Holly Railroad, about seven miles in length.

Plans, profiles, etc., may be seen, and all necessary information obtained of H. L. Southard, at the Engineer's office, in Burlington, after the 10th of November.

The company reserve the right of rejecting all bids deemed incompatible with their interests.

ROBERT S. VAN RENSSELAER, Burlington, October 30, 1848.

RAILROAD IRON.

THE TRENTON IRON COMPANY ARE now turning out one thousand tons of rails per month, at their works at Trenton, N. J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover iron. The position of the works, on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to

COOPER & HEWITT, Agents, 17 Burling Slip, New York.

October 30th, 1848.

DEAN, PACKARD & MILLS, MANUFACTURERS OF ALL KINDS OF**RAILROAD CARS,**

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

ALSO

SNOW PLOUGHS AND ENGINE TENDERS

OF VARIOUS KINDS

CAR WHEELS AND AXLES fitted and furnished

at short notice; also, STEEL SPRINGS

of various kinds; and

SHAFTING FOR FACTORIES.

The above may be had at order at our Car Factory,

REUBEN DEAN,

ELIAH PACKARD,

ISAAC MILLS, SPRINGFIELD, MASS.

1848

RAILROAD IRON.

3000 TONS, ABOUT 60 LBS. PR lineal yard—deliverable early in the Spring, and of undoubted quality, can be contracted for at a low rate. For sale by **DAVIS, BROOKS & CO.** 68 Broad street, New York, Sept. 16, 1848.

Also on hand—1000 Tons best quality Rails.

FULLER'S PATENT INDIA RUBBER CAR SPRINGS.—These Springs have been in use for nearly four years, with most complete success, and they are now in use upon most of the principal roads in this country. They are made of the best material, are economical, light, and very easy in their motion—all persons using them are guaranteed against adverse claims.

Offices 78 Broad street New York; and Jas. Lee & Co., 18 India wharf, Boston.

Railroad companies are cautioned against the statements made by the New England car company. The India rubber used by the patentee is the best that can be made, and does not conflict with any existing patent. The ridiculous statement that a patentee may not vend his own invention needs no remark.

The patent for these springs was granted to W. C. Fuller, in Oct., 1845, in the United States and in England; A Mr. Ray claims to have invented another spring, which counsel advise, is a mere evasion of Mr. Fuller's patent, and proceedings are being taken to stop that infringement.

"The New England Car Company" have published an article from the pen of Mr. Hale, president of the Boston and Worcester railroad, expressing his opinion concerning these springs—but they have forgotten to publish the whole of that article; it is therefore given in full now, and the portion omitted by the New England car company is printed in italics, that the public may judge of the manner in which this "company" pervert Mr. Hale's meaning. G. M. KNEVITT, Agent, 78 Broad St., New York.

September 30, 1848.

[From the Boston Advertiser of the 7th June.]

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the New-England special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. Each spring is composed of several circular layers or rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr. Knevelt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper."

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT, Factory, 9th street, near Coates, cor. Melon st. Office, No. 3 North 5th street, Philadelphia, Pa.

TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.

The subscribers have for sale Am and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE, N. E. cor. 12th and Market sts., Philad., Pa.

THE NEWCASTLE MANUFACTURING

Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY, President of the Newcastle Manuf. Co.

LAP-WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1/2 TO 8 INCHES DIAMETER.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER, Patentee.

28 Platt street, New York.

ENGINEERS' AND SURVEYERS'**INSTRUMENTS MADE BY**

EDMUND DRAPER,

Surviving partner of

STANCLIFFE & DRAPER.



No 23 Pear street, below Walnut, Philadelphia.

**DIRECT ACTION ENGINES
FOR STEAMBOATS.**

THE PATENT DOUBLE CYLINDERS,

AND ALSO

THE ANNULAR RING PISTON ENGINES,
of Messrs. Maudslay, Sons & Field, of London,
may be built in the United States, under license,
which can be obtained of their agent,

THOMAS PROSSER, C. E.,
28 Platt street, New York.

May 6, 1848.

**WILLIAM JESSOP & SONS,
CELEBRATED CAST-STEEL.**

The subscribers have on hand, and are constantly
receiving, from their manufactory,

PARK WORKS, SHEFFIELD.

Double Refined Cast Steel—Square, flat & octagon.
Best warranted Cast Steel—Square, flat & octagon.
Best Double and Single Shear Steel—Warranted.
Machinery Steel—Round.

Best and 2d gy. Sheet Steel—for Saws and other
purposes.

German Steel—flat and sq., "W. I. & S." "Eagle"
and "Goat" Stamps.

Genuine "Sykes," L. Blister Steel.

Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most fa-
vorable terms, by WM. JESSOP & SONS,

91 John Street, New York.

Also by their Agents—

Curtis & Hand, 47 Commerce St., Philadelphia.

Alex'r Fullerton, & Co., 119 Milk St., Boston.

Stickney & Beatty, South Charles St., Baltimore.

May 6, 1848.

NEW PATENT CAR WHEELS.

THE SUBSCRIBERS ARE NOW MANU-
facturing Metallic Plate Wheels of their in-
vention, which are pronounced by those that have
used them, a superior article, and the demand for
them has met the most sanguine expectations of the
inventors. Being made of a superior quality of
Charcoal Iron, they are warranted equal to any
manufacture.

We would refer Railroad Companies and others
to the following roads that have them in use. Hart-
ford and New Haven, Connecticut River Railroad,
Housatonic, Harlem, Farmington, and Stonington.

SIZER & CO.

Springfield, Mass.

January 29, 1848. if

RAILROAD IRON AND LOCOMOTIVE

Tyres imported to order and constantly on hand
by A. & G. RALSTON,

Mar. 20th

4 South Front St., Philadelphia.

TO MACHINISTS & MANUFACTURERS.

The Subscribers have taken the READING
CAR AXLE MANUFACTORY—and are prepared
to execute orders for Axles of every description, and
Wrought Iron Shafts for Steamboats, Mills, etc.,
made from superior material, at short notice. Ad-
dress Reading, Pa.

ANDREW TAYLOR & CO.

August 5, 1848—3m

RAILROAD IRON—SHEET IRON—

BRASIER'S RODS—HOOPS—SCROLL
—BANK'S BEST—& OTHER GOOD MAKES
OF ENGLISH IRON.

100 Tons Railroad Iron—Staffordshire make—
56 pounds per yard—shipped from Liverpool 20th
July, expected to land on wharf from 10th to 20th
September.

Also have Invoices of Sheet Iron, Brasier's Rods,
Hoops, Scroll, and Band Iron, Banks best, and other
good makes of English Rolled Iron, to arrive,
suitable for Railroad Axles, etc., etc., equal in quan-
tity to American Rolled Iron. I have agency of sev-
eral best makers in England and Wales, and can
import for Railroad Companies, and others, on best
terms, and at much less prices than they can be sup-
plied from American Mills.

DAVID W. WETMORE,

218 Water street.

New York, Sept. 9, 1848.

MATTEWAN MACHINE WORKS.

THE MATTEWAN COMPANY HAVE
added to their Machine Works, an extensive
LOCOMOTIVE ENGINE department, and are prepared
to execute orders for Locomotive Engines of every
size and pattern—also, *Tenders, Wheels, Axles,* and
other Railroad Machinery, to which they ask the at-
tention of those who wish such articles, before they
purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC.,
Of any required size or pattern, arranged for driv-
ing *Collars, Woollen,* or other Mills, can be had on
favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY,
Of every description, embodying all the modern im-
provements, second in quality to none in this or any
other country, made to order.

MILL GEARING.

Of every description, may be had at short notice, as
this company has probably the most extensive as-
sessment of patterns in this line, in any section of
the country, and are constantly adding to them.

TOOLS.

Turning Lathes, Slabbing, Planing, Cutting, and
Drilling Machines, of the most approved patterns,
together with all other tools required in machine
shops, may be had at the Mattewan Company's
Shops, Fishkill Landing, or at

39 Pine Street, New York.

WM. B. LEONARD, Agent.

FAIRBANKS' RAILROAD SCALES.

THE Subscribers are prepared to construct at short
notice, Railroad and Depot Scales, of any desired
length and capacity. Their long experience as ma-
nufacturers—their improvements in the construction
of the various modifications, having reference to
strength, durability, retention of adjustment, accu-
racy of weight and despatch in weighing—and the
long and severe tests to which their scales have been
subjected—combine to ensure for these scales the uni-
versal confidence of the public.

No other scales are so extensively used upon Rail-
roads, either in the United States or Great Britain;
and the manufacturers refer with confidence to the
following in the United States.

Eastern Railroad,	Boston and Maine R. R.
Providence Railroad,	Providence & Wor. R.R.
Western Railroad,	Concord R. R.
Old Colony Railroad,	Fitchburg R. R.
Schenectady Railroad,	Syracuse and Utica R. R.
Baltimore & Ohio Road,	Baltimore & Susq. R. R.
Phila. & Reading Road,	Schuylkill Valley R. R.
Central (Ga.) Railroad,	Macon and Western R.R.
	New York and Erie Railroad;

and other principal Railroads in the Western, Mid-
dle and Southern States.

E. & F. FAIRBANKS & CO.

St. Johnsbury, Vt.

Agents { FAIRBANKS & Co., 81 Water st. N. Y.

{ A. B. NORRIS, 196 Market st., Philad.

April 22, 1848. 1y+17

PATENT HAMMERED RAILROAD, SHIP

and Boat Spikes. The Albany Iron and Nail
Works have always on hand, of their own manufac-
ture, a large assortment of Railroad, Ship and Boat
Spikes, from 2 to 12 inches in length, and of any form
of head. From the excellence of the material al-
ways used in their manufacture, and their very gen-
eral use for railroads and other purposes in this coun-
try, the manufacturers have no hesitation in warrant-
ing them fully equal to the best spikes in market,
both as to quality and appearance. All orders ad-
dressed to the subscriber at the works, will be promp-
tly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.
The above spikes may be had at factory prices, of
Erastus Corning & Co., Albany; Hart & Merrill,
New York; J. H. Whitney, do.; E. J. Eting, Phila-
delphia; Wm. E. Coffin & Co., Boston. ja45

RAILROAD IRON.

THE NEW JERSEY IRON CO.'S WORKS,
at Boonton, are now in full operation, and can
execute orders for Railroad Bars of any required
pattern, equal in quality to any made in this coun-
try. Apply to DUDLEY B. FULLER, Ag't

139 Greenwich Street.

New York, October 25, 1848.

CHILLED RAILROAD WHEELS.—THE

undersigned are now prepared to manufacture
their Improved Corrugated Car Wheels, or Wheels
with any form of Spokes or Disks, by a new process
which prevents all strain on the metal, such as is
produced in all other chilled wheels, by the man-
ner of casting and cooling. By this new method of
manufacture, the hubs of all kinds of wheels may
be made whole—that is, without dividing them into
sections—thus rendering the expense of banding un-
necessary; and the wheels subjected to this process
will be much stronger than those of the same size
and weight, when made in the ordinary way.

A. WHITNEY & SON,

Willow St. below 13th,

Nov. 10, 1847. [H.]

Philadelphia, Penna.



THE SUBSCRIBER has on hand
a good assortment of
his best Leveling and
Surveying Instru-
ments, among them
his improved Com-
pass for taking angles
without the needle—
also Bells, suitable
for Churches, Rail-
road Depots, etc.

ANDREW MENEELY.

West Troy, May 12, 1847.

1y+21

PATENT RAILROAD, SHIP AND BOAT

Spikes. The Troy Iron and Nail Factory keeps
constantly for sale a very extensive assortment of
Wrought Spikes and Nails, from 3 to 10 inches,
manufactured by the subscriber's Patent Machinery,
which after five years' successful operation, and now
almost universal use in the United States (as well
as England, where the subscriber obtained a patent)
are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes
having countersink heads suitable to holes in iron
rails, to any amount and on short notice. Almost
all the railroads now in progress in the United States
are fastened with Spikes made at the above named
factory—for which purpose they are found invalua-
ble, as their adhesion is more than double any com-
mon spikes made by the hammer.

All orders directed to the Agent, Troy, N. York
will be punctually attended to.

HENRY BURDEN, Agent

Spikes are kept for sale, at Factory Prices, by
& J. Townsend, Albany, and the principal iron mer-
chants in Albany and Troy; J. I. Brower, 222 Water
St., New York; A. M. Jones, Philadelphia; T. Jar-
viers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward
their orders as early as practicable, as the subscriber
is desirous of extending the manufacturing so as to
keep pace with the daily increasing demand.
ja45

TO LOCOMOTIVE AND MARINE EN-

gine Boiler Builders. Pascal Iron Works,
Philadelphia. Welded Wrought Iron Flues, suita-
ble for Locomotives, Marine and other Steam En-
gine Boilers, from 2 to 5 inches in diameter. Also,
Pipes for Gas, Steam and other purposes; extra
strong Tube for Hydraulic Presses; Hollow Pis-
tons for Pumps of Steam Engines, etc. Manufact-
ured and for sale by

MORRIS TASKER & MORRIS,

Warehouse S. E. corner 3d and Walnut Sts., Phila-
delphia. 14

CHILLED RAILROAD WHEELS.—THE

undersigned, the Original Inventor of the Plate
Wheel with solid hub, is prepared to execute all or-
ders for the same, promptly and faithfully, and soli-
cits a share of the patronage for those kind of wheels
which are now so much preferred, and which he ori-
ginally produced after a large expenditure of time
and money.

A. TIERS,

Point Pleasant Foundry,

He also offers to furnish Rolling Mill Castings,
and other Mill Gearing, with promptness, having,
he believes, the largest stock of such patterns to be
found in the country.

A. T.

Kensington, Philadelphia Co.,

March 12, 1848.

NORWICH CAR FACTORY, NORWICH, CONNECTICUT.

At the head of navigation on the River Thames, and on the line of the *Norwich and Worcester Railroad*, established for the manufactory of

RAILROAD CARS,

OF EVERY DESCRIPTION, VIZ:

PASSENGER, FREIGHT AND HAND CARS,

ALSO, VARIOUS KINDS OF

ENGINE TENDERS AND SNOW PLOUGHS

TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

Any communication addressed to

JAMES D. MOWRY,

General Agent,
Norwich, Conn.,

Will meet with immediate attention.

MANUFACTURE OF PATENT WIRE

Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by

JOHN A. ROEBLING, Civil Engineer,

Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Ships, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition.

NICOLL'S PATENT SAFETY SWITCH

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee
G. A. NICOLLS,
Reading, Pa.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to 1 in calibre and 3 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS,
Warehouse E. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

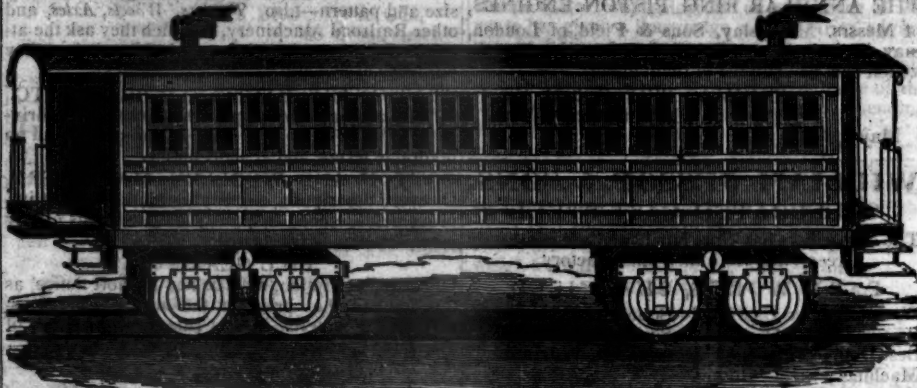
LAWRENCE'S ROSENDALE HYDRAULIC CEMENT. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods, and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by
JOHN W. LAWRENCE,
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office.

DAVENPORT & BRIDGES'

CAR WORKS, CAMBRIDGEPORT, MASS.



Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.
Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes.

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phoenix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,
Philadelphia.
ROBERT NICHOLS, Agent,
No. 79 Water St., New York.

RAILROAD IRON, PIG IRON, ETC.

600 Tons of T Rail 60 lbs. per yard.
25 Tons of 2 1/2 by 1/2 Flat Bars.
25 Tons of 2 1/2 by 9-16 Flat Bars.
100 Tons No. 1 Gartsbrorrie.
100 Tons Welsh Forge Pigs.
For Sale by **A. & G. RALSTON & CO.**
No. 4 So. Front St., Philadelphia.

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester recently patented by the undersigned.

Our improved Spark Arrester have been extensively used during the last year, on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

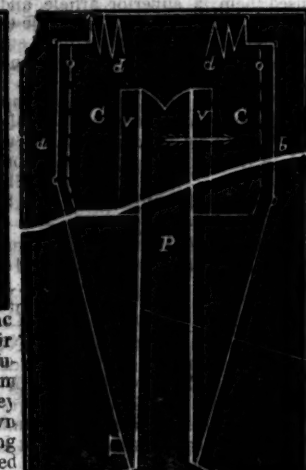
R. L. Stevens, President Camden and Amboy Railroad Company; **Richard Peters,** Superintendent Georgia Railroad, Augusta, Ga.; **G. A. Nicolls,** Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; **W. E. Morris,** President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; **E. B. Dudley,** President W. and R. Railroad Company, Wilmington, N. C.; **Col. James Gadsden,** President S. C. and C. Railroad Company, Charleston, S. C.; **W. C. Walker,** Agent Vicksburg and Jackson Railroad, Vicksburg, Miss.; **R. S. Van Rensselaer,** Engineer and Sup't Hartford and New Haven Railroad; **W. R. M'Kee,** Sup't Lexington and Ohio Railroad, Lexington, Ky.; **T. L. Smith,** Sup't New Jersey Railroad Trans. Co.; **J. Elliott,** Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; **J. O. Sterns,** Sup't Elizabethtown and Somerville Railroad; **R. R. Cuyler,** President Central Railroad Company, Savannah, Ga.; **J. D. Gray,** Sup't Macon Railroad, Macon, Ga.; **J. H. Cleveland,** Sup't Southern Railroad, Monroe, Mich.; **M. F. Chittenden,** Sup't M. P. Central Railroad, Detroit, Mich.; **G. B. Fisk,** President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city, will be promptly executed.

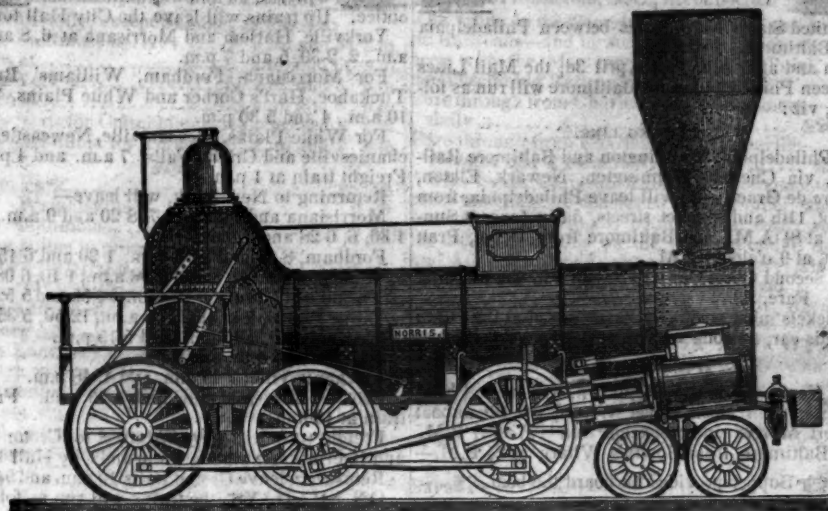
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

**. The letters in the figures refer to the article given in the Journal of June, 1844.



NORRIS' LOCOMOTIVE WORKS. BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA.



THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; ear wheels of cast iron, from a variety of patterns, and chills; ear wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Paterson, N. J., or 60 Wall street, N. York.

PIG AND BLOOM IRON.—THE SUBSCRIBERS are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniata Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of iron is solicited by

A. WRIGHT & NEPHEW,
12th Vine St. Wharf, Philadelphia.

T. & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N. B. Particular attention paid to the manufacture of the most improved Freight Cars. We refer to the New Haven, Hartford and Springfield, Connecticut River, Harlem, Housatonic, and Western, Mass., Railroads, where our cars are now in constant use.

Dec. 25, 1847.—1y. GYAN M.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 14 to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,
Albany Iron and Nail Works,

IMPORTANT TO ENGINEERS, CONTRACTORS and Surveyors.—The Engineer's, Contractor's and Surveyor's Pocket Table Book, by J. M. Scribner, A. M., 264 pages, 24 mo; tuck binding, with gilt edge. Published by Huntington & Savage, 216 Pearl street, New York.

The above work comprises Logarithms of Numbers, Logarithmic Sines and Tangents, Natural Sines and Natural Tangents; the Traverse Table, and a full and extensive set of tables, exhibiting at one view the number of cubic yards contained in any embankment or cutting, and for any base or slope of sides usual in practice. Besides these essential tables, the work comprises 50 pages more of Mensuration, Tables, Weights of Iron, Strength of Materials, Formulas, Diagrams, etc., for laying out railroads, canals and curves; much of which has never before been offered to the public, and all dispensable to the engineer. This book will prove a great saving of time, and will enable the new beginner to furnish results as accurately (and with much greater rapidity) as the most experienced in the profession without its aid. The tables of Logarithms, etc., have been carefully corrected and compared with different editions of the same tables; and all the tables throughout the book have been read carefully by proofs four times; hence the most implicit confidence may be placed in their correctness.

Also, Scribner's Engineer's and Mechanic's Companion, new edition; 264 pages, enlarged, with 35 pages of entirely new matter, and much improved throughout.

It is believed these books are so well adapted to suit the above professions, that they cannot afford to do without them, and that they will aid in rewarding well directed mental labor.

Both are for sale by all the principal booksellers throughout the United States and Canada.

WESTERN RAILROAD.—ON AND AFTER Monday, April 5, 1847, the passenger trains will leave daily, Sunday excepted, as follows:

Boston at 8 a. m. and 4 p. m. for Albany.
Albany at 7 1-4 a. m. and 5 p. m. for Boston.
Springfield at 8 1-2 a. m. and 1 p. m. for Albany.
Springfield at 8 1-2 a. m. and 1 1-2 and 3 p. m. (or on arrival of the train from New York) for Boston.
Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m. and arrives in New York at 7 p. m., by the steamboats Traveler, New York, or Champlain. Returning, leaves New York at 6 1-4 a. m. and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at m., and arrives in New York at 5 a. m.
Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p. m., Springfield next morning at 8 1-2, and arrive in Albany at 1 1-2 p. m. The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7 a. m. and 7 p. m. For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1-4 a. m., 1 and 3 p. m., and passengers proceed directly on to Braintree, Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r,
C. A. SEAD, Agent, 27 State street, Boston.

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—33 miles from Chattanooga, Tenn.

RATES OF FREIGHT.

	Between Augusta and Dalton.	Between Charleston and Dalton.
	271 miles.	408 miles.
1st class. Boxes of Hats, Bonnets, and Furniture, per cubic foot.....	\$0 18	\$0 23
2d class. Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class. Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class. Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 40	0 65
Cotton, per 100 lbs.	0 45	0 70
Molasses, per hoghead.	8 50	13 50
" " barrel.	2 50	4 25
Salt per bushel.	0 18	
Salt per Liverpool sack.	0 65	
Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows.	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at station.

F. C. ARMS, Supt. of Transportation.
Augusta, Ga., July 15, 1847.

THE WESTERN AND ATLANTIC

Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tusculumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846.

CENTRAL RAILROAD—FROM SAVANNAH TO MACON. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight.

Rates of Passage, \$3 00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods... 13 cts. per cubic ft.

On brls. wet (except molasses and oil)... \$1 50 per barrel.

On brls. dry (except lime)... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred.

On hhds. and pipes of liquor, not over 120 gallons... \$5 00 per hhd.

On molasses and oil... \$6 00 per hhd.

Goods addressed to F. WINN, Agent, forwarded free of commission.

THOMAS PURSE,
Gen'l. Supt. Transportation.

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1848.**SUMMER ARRANGEMENT.**

United States Mail Lines between Philadelphia and Baltimore. Fare, \$3.

On and after Monday, April 3d, the Mail Lines between Philadelphia and Baltimore will run as follows, viz:

MORNING LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, via Chester, Wilmington, Newark, Elkton, Havre de Grace, etc., will leave Philadelphia, from Depot, 11th and Market streets, daily (except Sunday) at 8¹/₂ A.M., and Baltimore from Depot, Pratt street, at 9 o'clock, A.M.

A Second Class Car will be run with the morning line. Fare, \$2.

Tickets must positively be procured at the Office for this car, as none will be sold by the conductors.

AFTERNOON LINE.

Via Newcastle and Frenchtown, will leave Philadelphia, from Dock Street Wharf, per Steamboat Robert Morris, daily (except Sunday) at 2¹/₂ P.M., and Baltimore, from Bowly's Wharf, at 2¹/₂ P.M.—

Supper provided on board the boat.

NIGHT LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, will leave Philadelphia, from depot, 11th and Market streets, daily, at 11 P.M., and Baltimore at 8 P.M.

WHEELING AND PITTSBURG.

Tickets through to Wheeling or Pittsburg, can be procured at the depot, or on board of the steamboat. Fare to Wheeling, \$13. Fare to Pittsburg, \$12.

The trains leave Baltimore for the west at 7 A.M. and 4 P.M.

SUNDAY MAIL LINE.

The only line for Baltimore on Sunday leaves the depot, 11th and Market streets, at 10 P.M.

Passengers for these lines must procure their Tickets at the office before taking their seats in the cars.

NOTICE.—All Baggage by these lines is at its owner's risk, and passengers are expressly prohibited taking anything as baggage, except their wearing apparel. 50 lbs. baggage allowed each passenger.

WILMINGTON ACCOMMODATION TRAINS.

On and after Monday, April 3d, the Accommodation Trains, stopping at all the intermediate places between Philadelphia and Wilmington, will leave as follows, viz:

Leave Philadelphia, from depot 11th and Market streets, daily (Sundays excepted) at 1¹/₂ and 4 P.M.

Leave Wilmington, from the depot, Water street, daily (except Sunday) at 7¹/₂ A.M. and 4¹/₂ P.M.

The Freight Accommodation Train will leave Philadelphia at 7 P.M. and Wilmington at 7 P.M.

The Mail Trains stopping at Chester and Wilmington, leave Philadelphia at 8¹/₂ A.M. and 10 P.M.

Wilmington at 1 o'clock, P.M., and 12 midnight. Fare to Wilmington, 50 cts. Fare to Chester, 25 cts.

G. H. HUDDALL, Agent.
March 23, 1848.

BOSTON AND PROVIDENCE RAILROAD.

On and after Monday, October 2d, the Trains will run as follows:

Steamboat Train—Leaves Boston at 5 p.m.—Leaves Providence, on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 a.m. and 3¹/₂ p.m. Leave Providence at 8¹/₂ a.m. and 3¹/₂ p.m.

Dedham Trains—Leave Boston at 9 a.m., 12 m., 3 p., 6 and 10¹/₂ p.m. Leave Dedham at 7¹/₂ 10¹/₂ a.m., 1¹/₂ 4¹/₂ and 9 p.m.

Stoughton Trains—Leave Boston at 11¹/₂ a.m. and 4¹/₂ p.m. Leave Stoughton at 8¹/₂ a.m. and 2¹/₂ p.m.

Freight Trains—Leave Boston at 11 a.m. and 6 p.m. Leave Providence at 4 a.m. and 7¹/₂ 4¹/₂ a.m.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 a.m., 12 m., 3¹/₂ 5¹/₂ and 10¹/₂ p.m. Leave Dedham at 8¹/₂ 10¹/₂ a.m., 1¹/₂ 4¹/₂ and 9 p.m.

WM. RAYMOND LEE, Supt.

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after

Tuesday, June 1st, 1847, the cars will run as follows, until further notice.

Up trains will leave the City Hall for—Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m.

Freight train at 1 p.m.

Returning to New York, will leave—Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 23 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m. and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9¹/₂ p.m.

ON SUNDAYS, the trains will run as follows: Leave City Hall for Croton Falls, 7 a.m., 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will precede each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers \$1, to Mechanicsville 87¹/₂ c., to Newcastle 75c., to Pleasantville 62¹/₂ c. to White Plains 50c.

251f

RAILROAD LINE BETWEEN ALBANY AND BUFFALO, N. Y.

1848.—SCHEDULE FOR RUNNING.—1848.

Going west. 1st train. 2d train. 3d train.

Leaves... Albany... 7¹/₂ A.M. 9 P.M. 7 P.M.

Pass... Utica... 1 P.M. 7¹/₂ P.M. 1¹/₂ A.M.

Pass... Syracuse... 4¹/₂ P.M. 11 P.M. 5 A.M.

Pass... Auburn... 6¹/₂ P.M. 1 A.M. 7 A.M.

Pass... Rochester... 12¹/₂ M.N. 7 A.M. 1 P.M.

Arrives at Buffalo... 5¹/₂ A.M. 12 M... 6 P.M.

Going east. 1st train. 2d train. 3d train.

Leaves... Buffalo... 7¹/₂ A.M. 9 P.M. 7 P.M.

Pass... Rochester... 12¹/₂ M... 7 P.M. 12 M.N.

Pass... Auburn... 6¹/₂ P.M. 1 A.M. 6 A.M.

Pass... Syracuse... 8¹/₂ P.M. 3¹/₂ A.M. 8 A.M.

Pass... Utica... 12 M.N. 7 A.M. 11¹/₂ A.M.

Arrives at Albany... 5 A.M. 12 M... 4 P.M.

Adopted February 18, 1848, in convention at Albany.

(Copy.) T. Y. HOWE, Jr., Secretary of the Convention.

BOSTON AND MAINE RAILROAD.

Winter Arrangement. Commencing Nov. 13, 1848.

Trains leave Boston as follows, viz: For

Portland at 7 A.M. and 2¹/₂ P.M.

Great Falls at 7 a.m., 2¹/₂ and 3¹/₂ p.m.

Haverhill at 7 and 11¹/₂ a.m., 2¹/₂, 3¹/₂ and 5 p.m.

Lawrence, at 7, 9, 11¹/₂ a.m., 2¹/₂, 3¹/₂, 5, 6 p.m.

Reading 7, 9 & 11¹/₂ a.m., 2¹/₂, 3¹/₂, 5, 6, 7¹/₂ & 10 p.m.

BALTIMORE AND SUSQUEHANNA

Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:
Leaves Baltimore at.....9 a.m. and 3 p.m.
Arrives at.....9 a.m. and 6 p.m.
Leaves York at.....5 a.m. and 3 p.m.
Arrives at.....12 p.m. and 8 p.m.
Leaves York for Columbia at.....1 p.m. and 8 a.m.
Leaves Columbia for York at.....8 a.m. and 2 p.m.

FARE.	
Fare to York.....	\$1 50
" Wrightsville.....	2 00
" Columbia.....	2 12½
Way points in proportion.	

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburgh via stage to Harrisburg.....\$9
Or via Lancaster by railroad.....10
Through tickets to Harrisburg or Gettysburg...3
In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owings' Mill, arriving at the Mills at.....5½ p.m.
Returning, leaves Owings' Mills at.....7 a.m.
D. C. H. BORDLEY, Sup't.
Ticket Office, 63 North st.

BALTIMORE AND OHIO RAILROAD.

MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburg and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. \$13½

NORWICH AND WORCESTER RAILROAD.

Summer Arrangement.—1848.

Accommodation Trains daily, (Sundays excepted.)

Leave Norwich, at 6 a. m., 12 m. and 5 p. m.
Leave Worcester, at 6½ and 10 a. m., and 4½ p. m. connecting with the trains of the Boston and Worcester and Providence and Worcester railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston, daily, Sundays excepted, at 5 p. m.—At New York from pier No. 1 N. River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ a. m., from Norwich at 7 a. m.

Fares are Less when paid for Tickets than when paid in the Cars.

S. H. P. LEE, Jr., Sup't.

RAILROAD IRON—2500 TONS HEAVY

Rail, now landing, and expected shortly to arrive, for sale on most favorable terms by

DAVIS BROOKS & CO.

July 1914, at 68 Broad street, New York.

SOUTH CAROLINA RAILROAD.

A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tusculum Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily.....\$26 50
Fare through from Charleston to Huntsville, Decatur and Tusculum.....22 00
The South Carolina Railroad Co. engage to receive merchandise consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.
JOHN KING, Jr., Agent.

CENTRAL AND MACON AND WESTERN RAILROADS, Ga.

These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

Savannah to Macon—Central Railroad.....190
Macon to Atlanta—Macon and Western.....101
Atlanta to Oothcaloga—Western and Atlantic...80
Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton, Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings.....	To Atlanta.	To Oothcaloga.
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones.....	\$0 50	\$0 75
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot.....	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot.....	0 20 pr. 100lbs. 35	
Crockery, per cubic foot.....	0 15	35
Molasses and Oil, per hhd., (smaller casks in proportion): 9 00		12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each.....	1 25	1 50
Ploughs, (small,) and Wheelbarrows.....	0 80	1 05
Salt, per Liverpool Sack.....	0 70	0 95
Passage—Savannah to Atlanta, \$10; Children, under 12 years of age, half price, Savannah to Macon, \$7.		

Goods consigned to the subscriber will be forwarded free of Commissions.

Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, Forwarding Agent, C. R. R. Savannah, Aug. 15th, 1846.

PHILADELPHIA AND READING RAILROAD.

Passenger Train Arrangement for 1848.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Between Phila. and Pottsville, 92 Miles. No. 1. No. 2.
Reading, 58 2-25 and 1-90
Pottsville, 34 1-40 and 1-20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets.

NEW YORK ANDERIE RAILROAD LINE.

SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 23, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M. Fare between New York and Otisville, \$1 50; way-fare in proportion.

For Mail—Leave Otisville at 5½ o'clock, morning and evening.

For Freight—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays).

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For further particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY.

Fall and Winter Arrangement, 1847. On and after Monday, September 20th,

until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Wayneville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a. m. Upward train arrives at Cincinnati at 10½ a. m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, is 33 hours. Distance from Cincinnati to Springfield by railroad.....84 miles.

From Springfield to Bellefontaine by stage, over a good Summer road.....32 "

From Bellefontaine to Sandusky city by railroad.....102 "

FARE—From Cincinnati to Lebanon.....\$1 00

" " " Xenia.....1 50

" " " Springfield.....2 00

" " " Columbus.....4 00

" " " Sandusky city 7 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

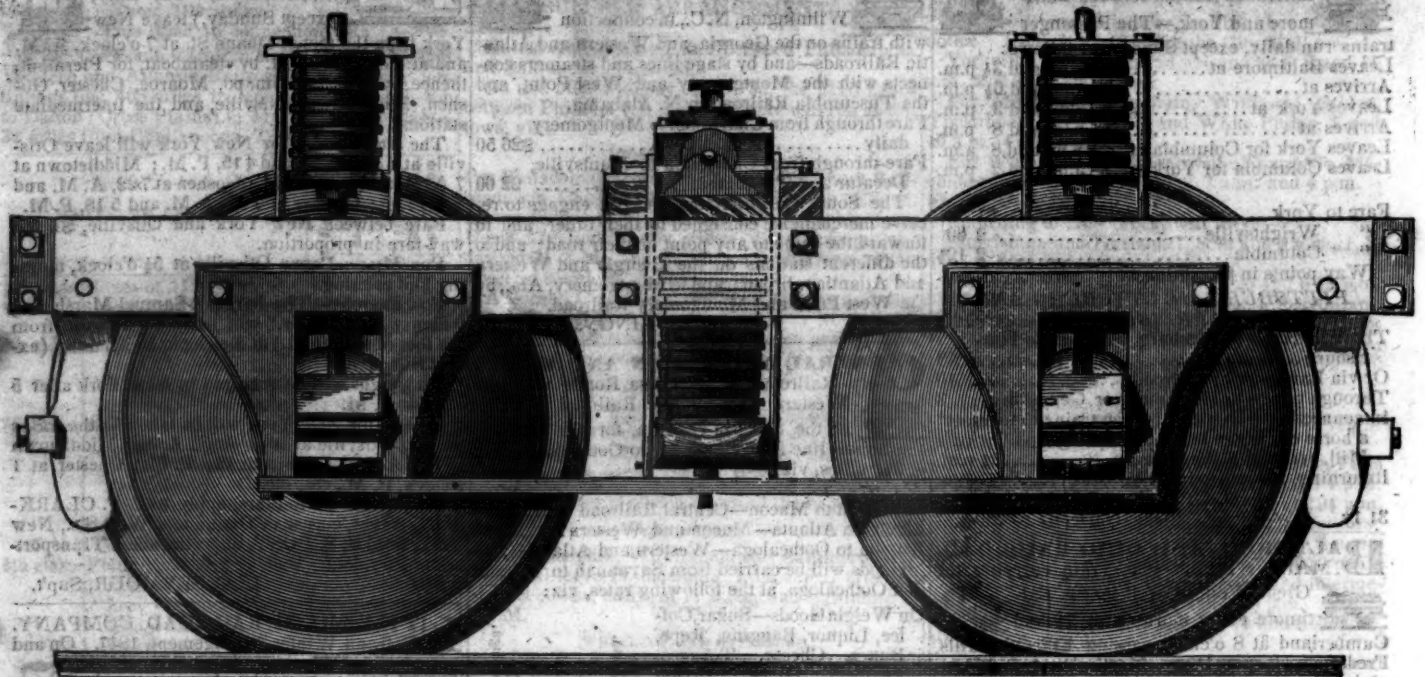
Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company, on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every \$500 in value over that amount.

W. H. CLEMENT, Sup't.

VULCANIZED INDIA RUBBER CAR SPRINGS.



THE NEW ENGLAND CAR COMPANY have introduced these Springs, and they are now in operation on every Railroad terminating in Boston, and several others in New England and the Middle States. Their qualities are well understood, or may be readily ascertained by every person interested to know them. They require no recommendation from the Company. The only known compound of India Rubber good for anything for this purpose is the Vulcanized India Rubber, invented by Charles Goodyear, of New Haven, and the application of it, and the form in which it is used, were invented by F. M. Ray, of New York. The right to manufacture and sell the substance itself for the purpose of Railroad Carriage Springs, as well as the form and application of it, are held exclusively by the New England Car Company. No other company, or individual, has any right to sell or use it for such purpose, or has attempted so to use it in this country.

The New England Car Company guarantee the right to use the article they sell for Railroad Carriage Springs only, against all adverse rights, whether under patents or otherwise: and all persons and corporations are cautioned against a similar use of the article, when purchased of any other parties.

The Springs they sell are all manufactured in a uniform manner, and under the immediate inspection of their own Agent, and have been proved and known to answer the purpose. None have been manufactured in this country or imported from abroad beside their own, which would at all answer the purpose; and if any such should be produced, it cannot be used for Car Springs, while Goodyear's patents, and the rights of the New England Car Company under them, remain in force.

The New England Car Company are now prepared to answer orders for all that may be called for, on reasonable notice, and uniform and equitable terms. They invite the most careful examination, and the severest scrutiny, into the merits of their Springs, whenever they have applied them. And if after such examination, your Company should judge it for their interest to adopt them, the N. E. Car Company would respectfully invite the patronage which they think they deserve, and are confident of receiving at your hands.

EDWARD CRANE, Agent,
Office 99 State street.

Orders may also be left with **WM. RIDER & BROTHERS**, No. 53 Liberty street, New York, or with **F. M. RAY, Agent,** 100 Broadway, N. Y.

The following article, from the pen of Mr. HALE, the president of the Boston and Worcester railroad, expresses his opinion of this important improvement, as published in the Boston Daily Advertiser of June 7, 1848. He says:

"Of the numerous uses to which the wonderful elasticity and durability of India Rubber renders this material applicable, we are hardly aware of one in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used, not only for the springs on which the car rests, but for the springs attached to the draw bar at each end of the car, to prevent any jar on the sudden advancement or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn, that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have ever seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months, in which we have seen the springs in operation, there is no apparent wear or diminution of their efficiency."

The above statement of Mr. Hale agrees with my own observation in all particulars.

WM. PARKER, Supt. B. & W. R. R.
June 8, 1848.

I fully concur in the foregoing statement, from practical observation of its use for the last 5 months, on the Boston and Worcester railroad corporation cars.

D. N. PICKERING, Jr.,
Supt. Car Building B. & W. R. R.
Boston, June 10, 1848.

The New England Car Company have introduced their Vulcanized India Rubber Car Springs on the roads with which we are respectively connected, and we fully concur with Mr. Hale in the above opinion of their character and properties.

DAVENPORT & BRIDGES, Car Builders,
BRADLEY & RICE, Car Builders,
Boston, June, 1848.

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 14 to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WAR,
12 Platt street, New York.
JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom.

AMERICAN RAILROAD JOURNAL.

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This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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D. K. MINOR.